STATE OF MAINE
PUBLIC UTILITIES COMMISSION

Docket No. 2002-578

June 30, 2003

PUBLIC UTILITIES COMMISSION
Investigation of Compensation by Global NAPs to Verizon and Other LECs for interexchange internet traffic and Use of NXX Codes by Global NAPs

ORDER

WELCH, Chairman; NUGENT and DIAMOND, Commissioners

I. SUMMARY

In this Order, we require Verizon Maine (Verizon) to provide a wholesale service to Global NAPs and other competitive interexchange carriers (IXCs) that will allow those IXCs to provide a service to internet service providers (ISPs) that is similar to the retail PRI-Hub service that Verizon provides to ISPs. IXCs that take this service will pay for transport and incremental switching, and the pricing will be based on long run incremental costs (LRIC).

II. PROCEDURAL BACKGROUND

We opened this investigation on October 8, 2002, to address claims made by Global NAPs that it was entitled to NXX codes so that it could provide a service similar to that which we ruled unlawful in the *Brooks* Investigation.[1] Initially, we addressed the issues raised by Global NAPs' request in the *Brooks* Investigation, but we transferred consideration of the issues and the record developed in that case to this proceeding. The *Amended Notice of Investigation* (NOI) (October 9, 2002) in this proceeding stated that we would defer certain issues raised by Global NAPs (among them, a claim that our rulings in Brooks were no longer valid because of federal preemption) and instead seek a solution that would satisfy the interests of Global NAPs and was consistent with the interests of Verizon, Maine's other ILECs, and the customers of those companies.

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[1] *Public Utilities Commission, Investigation into Use of Central Office Codes (NXXs) by New England Fiber Communications, LLC d/b/a Brooks Fiber*, Docket No. 98-758, Order Requiring Reclamation Of NXX Codes And Special ISP Rates By ILECs (Order No. 4) (hereinafter, the *Brooks Investigation* or *Brooks Order*).

The NOI requested the parties[2] to comment on a specific proposal that had been "described by the Advisory Staff at a Technical Conference held on July 18, 2002, and in a written outline later distributed to the parties." We describe that proposal and the parties' responses below.

III. DISCUSSION AND DECISION

When the Commission began investigating this matter under the *Brooks* investigation, Global NAPs stated its intention to provide ISPs with a service that would enable end-users (ISP subscribers) to reach the ISP on a toll-free basis. Global NAPs proposed to provide such a service using multiple NXXs (thus invoking the service we found to be unreasonable and unlawful in the *Brooks* investigation), but also indicated a willingness to provide the service using a single NXX. Global NAPs proposed that Verizon would provide Global NAPs with end-office switching, tandem switching and transport to the point of interconnection with Global NAPs.

The NOI characterized the service proposed by Global NAPs as "interexchange," based on a prior finding in the *Brooks* investigation. Global NAPs was a party in that proceeding and neither it nor any other party appealed the finding. The NOI requested the parties to respond to the Staff advisors' proposal, which would allow Global NAPs to use a single code and pay for the service based on long run incremental costs (LRIC). Verizon's pricing for the service would be flat-rated and based on a costing methodology similar to that used for Hub-PRI service pricing, which we understand is "long-run marginal cost." The Advisory Staff's original proposal is set forth in Appendix A.

Verizon has not claimed that any aspect of the service desired by Global NAPs is not technically feasible. Verizon did not answer most of the questions posed by the Examiner with regard to the specific proposal advanced by the advisors, namely, that Verizon would make available network functions so that competitive interexchange carriers may offer retail alternatives to Verizon's HUB-PRI service. Instead, it addressed only the compensation issue, arguing that because the SNS traffic that Global NAPs proposes to carry is interexchange, Global NAPs should pay regular access rates. It argues that the Commission "has no other lawful rate to apply to the originating service . . . but tariffed switched access charges."

Verizon contends that internet traffic does not enjoy subsidized status under state or federal law. Verizon argues that 35-A M.R.S.A. § 7101(4) does not require or even permit lower rates for state-wide access to information services. It urges us to find that Section 7101(4) is not a plenary mandate to discount all uses of the public switched network involving information services, but rather a legislative "endorsement" of the

[2] Pursuant to the NOI, the parties in this case are those that participated in the *Brooks* investigation. These are: Global NAPs, Verizon, Brooks, Sprint, the Public Advocate, the Telephone Association of Maine, Mid-Maine Communications, Community Service Telephone Company and GWI.

support to schools and libraries that is to be used for assistance in purchasing telecommunications service needed to access information services. Verizon is correct that the legislative history of this provision indicates that the Legislature enacted it to address support for the school and library network and that there is no suggestion in that history that the Commission should engage in extensive redesign of rates to favor ISP traffic.[3] On the other hand, when a statute is clear and unambiguous on its face, it is not appropriate to resort to legislative history to find meaning or intent. The language of Subsection 4 of Section 7101 is not restricted to schools and libraries. Its language is much broader:

> **4. Information access.** The Legislature further declares and finds that computer-based information services and information networks are important economic and educational resources that should be available to all Maine citizens at affordable rates. It is the policy of the State that affordable access to those information services that require a computer and rely on the use of the telecommunications network should be made available in all communities of the State without regard to geographic location.

We interpreted this provision consistent with its broad language in the *Brooks* Investigation when we ordered Verizon to provide a discounted retail service to ISPs that would provide affordable connectivity to the internet. During the *Brooks* investigation, Verizon could have raised the same argument that it raises now in this case, but did not do so. Verizon responded to the *Brooks* Order by proposing what is now known as Hub-PRI service. The Commission's decision in *Brooks* made the legal and policy determination that Section 7101(4) authorized a reduced-price interexchange service to ISPs. We also see no policy reason, and Verizon advanced none, why services similar to its retail offering should not be made available on a wholesale basis so that competitive alternatives will be available.[4]

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[3] Section 7101(4) was enacted as part of an "Act to Provide Affordable Access to Information Services in All Communities of the State through Enhanced Library and School Telecommunications," P.L. 1995, ch. 631, and that, in that Act, the Legislature did specifically endorse prior Commission orders in two proceedings that required funding for schools and libraries. In the 1995 Act, the Legislature retroactively approved the actions by the Commission in Docket Numbers 94-123 and 94-254 (respectively, the first Verizon AFOR case and the *Pease* rate investigation) that established school and library funding. Section 4 of the Act states that those actions were authorized pursuant to sections 2 and 3 of the Act. Section 2 of the Act enacted subsection 4 of 35-A M.R.S.A. § 7101. Section 3 of the Act enacted a new section of the revised statutes, 35-A M.R.S.A. § 7104-A, that specifically addressed funding for schools and libraries.

[4] To the contrary, as this case essentially involves designing rates, a matter over which we have considerable discretion, we think it reasonable that we should consider the policy articulated by the Legislature in Section 7101(4) in exercising that discretion.

In any event, there is a long history of encouraging such traffic, both at the state and federal level. Even if section 7101(4) did not exist, the Commission would have the authority under its general ratemaking authority to ensure reasonably-priced internet access.

The price for the Hub-PRI service is set to allow Verizon to recover its incremental cost for transporting interexchange internet traffic to an ISP. An examination of Verizon's cost study supporting the HUB-PRI service shows that the HUB-PRI service does not recover *any* portion of loop costs and does not recover end-office switching costs to the same extent as rates for other retail interexchange services.

Global NAPs agrees with the Advisory Staff's suggestion that a wholesale equivalent of Verizon HUB-PRI service could be made available by "permitting it to purchase incremental cost-based transport from end users to a central location under intrastate arrangements." Thus, the choice in this case is whether we are satisfied that ISPs have a sufficiently wide range of options so Maine consumers are no worse off than in other areas, or whether, in order to avoid the prospect of Verizon dominating even a portion of the market for ISP services, we should require that Verizon offer a wholesale service analogous to Hub PRI, with its avoidance of the common line burden, on a functionally unbundled basis to ISPs.

The advisors issued a data request to Global NAPs requesting it to describe the design of its proposed service configuration for the service it wishes to offer. Global NAPs states that it needs Verizon to carry traffic from end user customers who dial an access number to a point of interconnection at which Verizon's facilities will connect to those of Global NAPs. To accomplish this, Verizon will need to provide Global NAPs with local/host switching, tandem switching, and transport services (including termination). The services that Global NAP is requesting are nearly identical to those provided to IXCs as access services. From an engineering perspective, there is validity to Verizon's argument that what Global NAPs seeks is virtually identical to ordinary interexchange switched access charges, for which IXCs pay regular access rates.

Global NAPs is, of course, arguing for a different compensation methodology and amount. Global NAPs proposes to base compensation on Verizon's incremental costs. Global NAPs contends that even though Verizon will provide local switching for this traffic and that its traffic will travel over Verizon's loops, only the increased minutes at the busy hour for each end office, above those which are currently included in existing switch design, are incremental and should be included in the compensation arrangement. Since most loop costs are not traffic sensitive, Global NAPs believes no loop costs should be included in a compensation plan.[5]

[5] In its Exceptions, Verizon claims that "some of the contentions attributed to the parties [in the Examiner's Report] cannot be found within the parties/ written comments, or . . . the July 19, 2002 Case Conference." Verizon further surmises that some of the contentions came from the record in a parallel arbitration proceeding in Docket No.

We agree with Global NAP's argument that a compensation mechanism should include only incremental end-office switching costs and no share of loop costs. That approach best emulates Verizon's retail Hub-PRI service. In addition, Verizon already recovers existing end-office and tandem switching and loop costs in its rates for other services, a circumstance that we relied on in the pricing for Hub-PRI service. We also agree with Global NAPs suggestion that transport costs "should be based on an efficient forward-looking technology" that uses a common transport network for low volume routes and an efficiently-configured high usage dedicated trunk network for high volume routes. We further believe that the costs of the common network should also include the incremental costs of increased host-remote trunking capacity, trunks from the host to the tandem and any additional host and/or tandem switching costs incurred by Verizon. These costs should be based on the expected average traffic volumes during the busy hour. We also believe the incremental transport and switching costs should include the same level of assignment of common overheads, such as corporate overheads and benefits, that Verizon assigned to the HUB-PRI service when it performed its cost analysis for that service.

To determine these specific costs with reasonable accuracy, we would need to predict the number of voice minutes that each additional PRI obtained by an ISP is likely to generate at each portion of the switched network. Global NAPs urges us to accept a calculation of those costs that is based on the average transport distance for a large (DS3) trunk group. Notwithstanding its argument that the costing methodology should use a common transport network for low volume routes and an efficiently-configured high usage dedicated trunk network for high volume routes, Global NAPs proposes to use an actual methodology that is much simpler: it would divide the TELRIC costs of a large capacity transport facility by the minutes the facility is capable of transporting to determine a per mile/per minute cost of transport. Global NAPs may have performed the calculation of call carrying capacity of a "fully packed" DS3 facility correctly, but that calculation does not provide an accurate prediction of actual incremental network costs caused by Global NAPs traffic. In contrast to the traffic that originates with a large DS3 circuit, Global NAPs' traffic does not all originate from the same place and, in many instances, will use transport facilities that are considerably smaller than DS3s.

The per circuit cost of small capacity transport facilities is considerably greater than that for large capacity DS3 facilities capable of carrying the same amount of traffic in the aggregate. Thus, the use of DS3 costs is likely to understate the actual facility circuit costs for Global NAPs' traffic. Global NAPs' traffic is likely to originate from many different points within Maine, and we do not know all of those locations. Most likely, Global NAPs does not know all those locations at this time. Knowing those locations would be necessary to determine both the transport distances and the trunk group sizes. Using average transport distances and a single, large transport facility as a

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2002-421. In fact, the contentions were made in a letter filed on September 16, 2002 by Global NAPs in the *Brooks Investigation*. As explained above, the record in that case (insofar as it relates to the issues raised by Global NAPs) was transferred to this case.

surrogate for actual incremental transport cost will not provide a sufficiently accurate cost estimate. Global Naps' methodology fails to recognize that much of its traffic is likely to be collected from smaller end-offices using small trunk groups that are typically not "fully packed." The cost of numerous small trunk groups is not equal to the cost of a large trunk that could handle the aggregate capacity of the numerous smaller trunks.

Global NAP's assumption that we can calculate the per-mile trunking cost by using the average transport distance is not reasonable because the size, number, and length of trunk groups will vary substantially by route. Since there are substantial variances around the average, it is highly unlikely that the costs for service configuration desired by Global NAPs would be similar to the average. Because trunking costs are not linear with trunk distance, the use of an average most likely will not be accurate. In other words, the incremental cost to Verizon for switching traffic for Global NAPs depends not only on the aggregate level of traffic, or the aggregate distance it is transported, but on the location from which various portions of the traffic must be transported and the amount of traffic coming from each location. The use of average traffic amounts and distances would be reasonable only if traffic patterns were uniform, the per minute unit trunking costs were the same regardless of trunk size, and all transport costs were linear with distance. Similarly, the need for host and/or tandem switching depends on the location in the network where each specific minute of use originates and cannot be calculated using simple averages.

Because it is nearly impossible to predict, either the level of expected traffic volumes and the point of origin of traffic that will be generated by ISP end users for each flat rated PRI, we decide that that the compensation plan will not be flat rated but instead will be based on an "access like" traffic sensitive rate structure with the following exceptions:

1. To the extent functions are used, they should be paid for; to the extent they are not, the ISPs who choose this new service over Hub PRI should not have to bear the cost of the unused features of the network.

2. No common line costs should be levied because the ISPs' use does not generally cause the need for any incremental loop investment.

3. Only incremental local switching and host/remote transport minutes caused by the ISP's traffic should be used in the calculation of the rate because the cost of the "baseline" or current level of switching and transport facilities necessary for providing local service is already included in end user local rates.

4. End-office switching, transport, and tandem costs should be based on Verizon's incremental costs to provide those services and shall include the use of the same allocation of common overheads that Verizon used to develop its rate for Hub-PRI service. The costs for these services should be close enough to Verizon's TELRIC costs for those network functions that the latter (which were generally established in the

TELRIC case) can be used as a surrogate.[6] Compensation to Verizon should not be flat-rated. We recognize that for retail Hub-PRI service, compensation to Verizon is not priced on a per-minute basis.[7] That model is inappropriate for the service requested by Global NAPs because most of the transport costs are not incurred on the basis of a large increment of capacity (e.g., each PRI trunk). Hub-PRI service, by design, directs ISP traffic off the existing public switched network and charges the ISP for each PRI transport based on the amount of traffic coming from various regions (sector hubs) around the state. Because the interconnection arrangement requested by Global NAPs would use the existing switched network and, in some cases, is less efficient than the HUB-PRI service, its costs are likely to exceed those that would be attributable to the HUB-PRI service. The compensation by Global NAPs to Verizon should reflect those differences. It is our goal not to create an opportunity for arbitrage by establishing whole rate for carriers such as Global NAPs. We believe the pricing methodology established herein is methodologically consistent with that used by Verizon in establishing rates for HUB PRI service and therefore will not create such an opportunity. However, we invite any party that disagrees to request an opportunity to present cost evidence showing that we should give further consideration in this proceeding to the question of whether an opportunity for arbitrage has been created.[8]

V. CONCLUSION

For the reasons stated above, we order Verizon to provide wholesale services, described above, that will permit Global NAPs and other IXCs to provide a service that is competitive with Verizon's Hub-PRI service. The service shall be priced using the pricing methodology described herein.

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[6] As with Global NAPs' proposal, TELRIC costs are averaged to the extent that they are not based on the specific network used by the end user. They are somewhat more distance sensitive than the costing methodology proposed by Global NAPs.

[7] We note that, in the *Brooks* orders, we attached great importance to having a "flat-rated" retail service for internet traffic. Nevertheless, the costs to a Hub-PRI customer are in fact traffic-sensitive, albeit not on a per-minute basis and in relatively large increments. A customer will need to add PRI trunks as its traffic from each sector hub increases.

[8] Sprint supported the advisory staff's proposal, but suggested that the system use a single state-wide NXX rather than an 800 or 500 number. We have no preference for one single-number (or single NXX) system over another as long as any service does not use multiple NXXs. Since both the Sprint proposal and the HE approach would appropriately conserve numbers, and since that the choice between the two approaches does not implicate any important policy issues, we direct the parties to attempt to reach agreement themselves (if a single system is even necessary) within the same time frame as the other remaining issues.

Dated at Augusta, Maine, this 30th day of June, 2003.

BY ORDER OF THE COMMISSION

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Dennis L. Keschl
Administrative Director

COMMISSIONERS VOTING FOR: Welch
Nugent
Diamond

NOTICE OF RIGHTS TO REVIEW OR APPEAL

5 M.R.S.A. § 9061 requires the Public Utilities Commission to give each party to an adjudicatory proceeding written notice of the party's rights to review or appeal of its decision made at the conclusion of the adjudicatory proceeding. The methods of review or appeal of PUC decisions at the conclusion of an adjudicatory proceeding are as follows:

1. Reconsideration of the Commission's Order may be requested under Section 1004 of the Commission's Rules of Practice and Procedure (65-407 C.M.R.110) within 20 days of the date of the Order by filing a petition with the Commission stating the grounds upon which reconsideration is sought.

2. Appeal of a final decision of the Commission may be taken to the Law Court by filing, within **21** days of the date of the Order, a Notice of Appeal with the Administrative Director of the Commission, pursuant to 35-A M.R.S.A. § 1320(1)-(4) and the Maine Rules of Appellate Procedure.

3. Additional court review of constitutional issues or issues involving the justness or reasonableness of rates may be had by the filing of an appeal with the Law Court, pursuant to 35-A M.R.S.A. § 1320(5).

Note: The attachment of this Notice to a document does not indicate the Commission's view that the particular document may be subject to review or appeal. Similarly, the failure of the Commission to attach a copy of this Notice to a document does not indicate the Commission's view that the document is not subject to review or appeal.